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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,270	12/14/2001	Robert C. Burdick	00-1304	3568

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EXAMINER
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BENENSON, BORIS

ART UNIT	PAPER NUMBER
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2836

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/023,270	Applicant(s) BURDICK, ROBERT C.	
	Examiner Boris Benenson	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2001.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/14/2002</u> . | 6) <input type="checkbox"/> Other: _____  |

***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "164" on Figure 6 has been used to designate both a first LED (red) and a line connecting components 144 and 146 of dual operational amplifier. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to because it is unclear on Figure 5 if a cathode of diode 64 is tied to a line between fuse 122 and terminal 130 or has connection only to resistor 142. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. Figure 3 and description indicate existence of one MOSFET (52) "including a plurality of three 54 downwardly extending tangs which engage within the selected subset plurality 51 of apertures defined in the circuit board 26 to affix the MOSFET 52 thereto". The circuitry presented on Fig. 5 and 6 indicate existence on at least two MOSFET (Fig.5, Pos 116 and 118) or (Fig.6, Pos.152 and 154).

***Specification***

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The title describes one of a functions such as diagnostic and indication of blown fuse which is a part of the solid state relay, but does not describe a function of detecting and indication of a partial or total open load circuit.

5. The disclosure is objected to because of the following informalities: It is not defined what are first and second switching conditions and if they are identical to a first circuit and a second circuit switching conditions. It is not clear also if switching conditions are depending on presence/absence of an input signal.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim language indicates that a self-diagnostic solid-state relay comprising **at least one LED** element being electrically communicable with a first side of said printed board. It further indicates that a first switching conditions resulting in a first illuminating depiction of **said at least one LED** element and that a second circuit switching condition resulting in a second illuminating depiction of **said at least one LED element**. It isn't clear from the claim language or from the specification what is a first or a second illuminating depiction of said at least one LED element, is it a multicolor LED or depictions differentiate in a brightness of illuminations. The Specification indicates existence of two separate LED (Fig. 1-2, Pos. 72 and 74).

7. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The interconnections of the elements are not recited, how are the mosfet, led, fuse, male and female terminals are interconnected?

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Allowable Subject Matter

8. Claim 1 and 13 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

*The following is an examiner's statement of reasons for allowance:*

9. Independent Claims 1 and 13 would be allowable because none of the prior art of record disclose a solid state relay that indicating a partially open circuit operation conditions of controlled circuitry in combination with the other claim limitations.

***Related Prior Art***

Schroeder (4,075,579) disclosed an Electric Load Outage Detector that provides an indication of a stoppage of a load current. However a device disclosed by Schroeder is not a solid state but an electromechanical device that includes a moving contact (Fig. 2, Pos. 20, 20') and does not includes a relay and a second indicator for displaying conditions of the relay.

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### **Contact information**

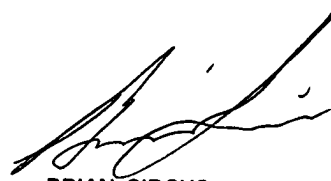
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Boris Benenson whose telephone number is (571) 272-2048. The examiner can normally be reached on M-F (8:20-6:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571) 272-2058 or (571) 272-2836. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Boris Benenson  
Examiner  
Art Unit 2836

B.B.



BRIAN SIRCUS  
SUPERVISORY PATENT EXAMINER  
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